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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------|------------------|
| 10/500,594 | 02/11/2005 | Rainer Eggert | 860-011848-US(PAR)/200104 | 4727 |
| 2512 | 7590 | 02/22/2006 | EXAMINER | |
| PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824 | | | TRAN, HOANG Q | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2874 | |

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 10/500,594 | Applicant(s) EGGERT ET AL. | |
| | Examiner Hoang Tran | Art Unit 2874 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1, 2, 5, 6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) 3, 4, and 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>06/29/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Examiner would like to note a more descriptive title such as "An optical Piezo-electric actuator" would be a more accurate title.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 5-6, and 8-12 are rejected under 35 U.S.C. 102(e) as being anticipated by the US Patent Application to DeReus (2002/0114058).

In terms of claim 1, DeReus teaches a device comprising: an at least partly opaque or non-transmissive lever (Fig 3), a bearing fulcrum about which at least a part of the lever is slewable at least partly in and out of the optical path by the use of a piezoelectric force. (Fig 1)

As for Claim 2, DeReus teaches the device of Claim 1, further comprising a piezoelectric element to exert the piezoelectric force on one end of the lever (Page 6 [0074]).

As for Claim 5, DeReus teaches the device of Claim 2, wherein the piezoelectric element being of bimorph type (Page 6 [0074])

As for Claim 6, DeReus teaches the device of Claim 2, wherein the end of the lever being connected to one end of the piezoelectric element which is slewable whereas another end of the piezoelectric element is fixed relative to the apparatus (Fig 18b).

As for Claim 8, DeReus teaches the device of Claim 1, further comprising: at least one catch in which the lever can be separable locked in at least one predetermined position (Fig 18B).

As for Claim 9, DeReus teaches the device of Claim 8, wherein two catches being positioned to be able to separable lock the lever at least partly in and out of the optical path.

As for Claim 10, DeReus teaches the device of Claim 9, wherein the piezoelectric force of the piezoelectric element being strong enough to release the lever from each catch and to switch the lever between the two catches (Fig 18B).

In terms of Claim 11, DeReus teaches a device comprising: a measuring device for measuring the slewing angle (Page [0074]), a comparator connected with the measuring device for comparing the measured value of the slewing angle with a predetermined value of the slewing angle (Page 6 [0074]) and a controller connected with the piezoelectric element for adjusting the piezoelectric force when the comparator has detected a difference between the measure value and the predetermine value of the slewing angle (Page 6 [0074]).

As for Claim 12, DeReus teaches the device of Claim 11, wherein the measuring device comprises a wire –strain gauge bonded to the piezoelectric element (page 6 [0074]).

Allowable Subject Matter

Claims 3, 4, and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: Claims 3 and 4 are allowed because prior art is silent to the implementation of a second arm attach to a first arm wherein a fulcrum is present between the first and second arm. This feature provides a mechanical function, which allows the piezoelectric actuator to mechanically adjust its position. Prior art is also silent to a piezoelectric element comprising of a seat located at the end of the first lever arm.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Tran whose telephone number is 571-272-5049.

The examiner can normally be reached on 9:00AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

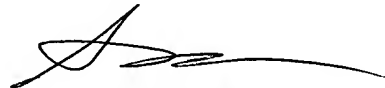
Art Unit: 2874

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ht



Hoang Tran
AU 2874
February 17, 2006



SUNG PAK
PRIMARY EXAMINER